

Notice of Allowability

Application No.

09/786,138

Examiner

Huyen X. Vo

Applicant(s)

SHONO ET AL.

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/6/2006.
2. ☒ The allowed claim(s) is/are 1-3.
3. ☒ The drawings filed on 06 August 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-3 are allowed over prior art of record. The following is an examiner's statement of reasons for allowance: Barnsley et al. (US 5065447) disclose a method for compressing information that first receives an input sound signal, an image signal, or data signal, then converts the received signal into a binary code bit string, and processing the binary code bit string (*referring to reference*). However, Barnsley et al. fail to specifically disclose obtaining an internal status $x(0)$ using the quantized initial value $Y(0)$ and n in a right-hand side of an reverse transform of isomorphic transform and quantization expression, $x(0) = \{\sin \pi Y_n(0)/2^{n+1}\}^2$ (where n is a quantized resolution of the first bit string); substituting the obtained internal status $x(0)$ in a right-hand side of an inverse calculation expression of a logistic map, $x(t-1) = (1 \pm (1-x(t))^{1/2})/2$ (where t is a discrete time), and selecting a sign of positive or negative in the right-hand side of the inverse calculation expression according to a binary value of the second bit string $\{y\}_2$, thereby obtaining a past retroactive internal status, the substituting and selecting steps sequentially executed by the number of bits of the second strings $\{y\}_2$; generating a compressed code $Y(-\tau)$ by using a resultant internal status $x(-\tau)$ and m in a right-hand side of an isomorphic transform and quantization expression, $Y(-\tau) = 2/\pi \times \arcsin(x(\tau))^{1/2} \times 2^m$ (where m is a newly defined quantized resolution of the second bit string, and τ is a discrete time newly defined for the above t), and outputting the compressed code $Y(-\tau)$, wherein a length of the compressed code $Y(-\tau)$ is less than a length of the bit string $\{y\}$. Furthermore, it would have not been obvious to one of

ordinary skill in the art at the time of invention to modify Barnsley et al. by incorporating the teaching of the above steps. Therefore, claims 1-3 are allowed over prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen Vo whose telephone number is 703-305-8665. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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12/7/2006



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